



BRIAN EYLEY PARTNERSHIP
CHARTERED BUILDING SURVEYORS

Our reference: 1186/BEE/pam (revised)

1186 Ditmar@bepd

Your reference:

Date: 27 June 2007

Dr W P A Ditmar
Meadowsweet
St Peters Road
Northney
Hayling Island PO11 0RX

Dear Dr Ditmar

MEADOWSWEET, ST PETERS ROAD, HAYLING ISLAND

Following my visit to your house on Thursday, I have pleasure in reporting to you. You have asked me to organise certain repair works for you and to continue to advise you. For this reason and in order to reduce your costs for my services, this report is a summary and not a fully detailed report containing justification, evidence and other details. However, if you require any further explanation or information, please contact me.

Background Information

I understand that the house is thought to date from the 15th or 16th century although, clearly, a number of alterations have been carried out over the years. In addition, there is an extension which dates from the earlier part of the 20th century although it has a similar external appearance. The older part of the building has a hardwood timber frame with brickwork infill. The internal floors are formed with hardwood joists supported upon the external walls and internal beams. The beams run parallel with the front west wall of the house. The extension has a construction consistent with its age, with brick walls and conventional joisted floors. The ground floors throughout are of solid construction although those in the older parts of the building are probably formed with tiled surfaces over a thin hardcore base. Both parts of the building are thatched.

South Elevation

The south elevation of the older part of the house has exposed timbers which have been altered on a number of past occasions. The horizontal beam at eaves level is a substantial oak timber. Timbers above and below the beam complete the framework. The framework is infilled with brickwork which, originally, would not have been of a structural nature. Due to the alterations to the framework and the defects which now exist, it is possible that the brickwork does carry some load.

Brian Eyley FRICS
3 The Potteries, Wickham Road, Fareham, Hants. PO16 7ET
Tel: 01329 515122 Fax: 515133 email: brian.eyley@bep.co.uk



The following defects were noted.

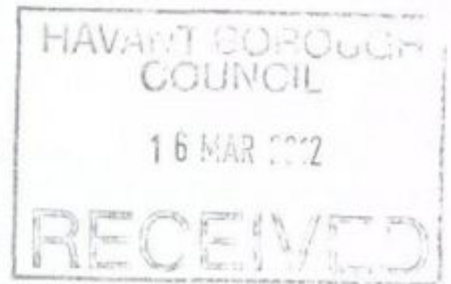
1. Severe deathwatch beetle and decay to the left of centre in the large beam at eaves level. There is no evidence to indicate that the infestation is live although we believe that this is the case. The decay is sufficient to severely weaken the beam to the extent that it could compromise the integrity of the framework on this wall and also reduce the effectiveness of the tie between the eaves beams on the front and rear elevations. Repair or renewal is required as soon as possible.
2. The vertical timbers each side of the windows have been altered or repaired on several past occasions. There are horizontal butt joints in the timbers. There appears to be no lateral restraint at the joints and the timbers are displaced. They have probably been displaced for many years but some are loose and capable of movement with light pressure. To the lower left of the ground floor window, there is an infill section of the vertical framing which is loose and is not receiving any vertical load. It appears likely that the load is being transferred to an adjacent horizontal timber through a notched joint. The various connections in this area should be overhauled to properly transfer the load to the oak framework without loading the brickwork. The other joints require further investigations for similar reasons.
3. The panel of brickwork above the first floor window is loose and proud of the adjacent oak framework. The cause of this is probably associated with the movement of the timber framework but needs to be investigated further. You should anticipate the need for this section of brickwork to be rebuilt or tied back, whichever is appropriate. Other infill panels may need similar restraint.

There is a substantial and attractive wisteria growing over the wall which obscures some of the timbers, joints and brickwork. This may end to be cut back in order to carry out further investigations and repairs. It is unlikely that it will be necessary to remove it.

Other External Walls

The pegged mortice and tenon joint in the north west corner of the building at low level appears to have broken down, allowing outward movement of the lower part of the west wall. This has caused cracking internally and, indeed, there is probably an open crack or joint from the interior to the exterior of the wall. We suggest that the joint is strapped with a purpose made wrought iron strap, fitted externally to the various timbers. This can be painted to match the appearance of the timbers. The alternative would be to carry out a full timber repair, but you should be aware that this would cause considerable disturbance to the structure and the infill panels in this part of the building. You should infill the plaster cracks with a material which will show any further movement, and you should also monitor this and other nearby joints for similar movement in the future.

DECADET



Dr. W. DITMAR
MEADOWSWEET
ST. PETERS ROAD
HAYLING ISLAND
PO11 0RX



Decadet Timber Frame Surveys
Unit 3, Roses Farm
Gallants Lane, East Farleigh, Kent ME15 0LG
Tel: 07836 746520

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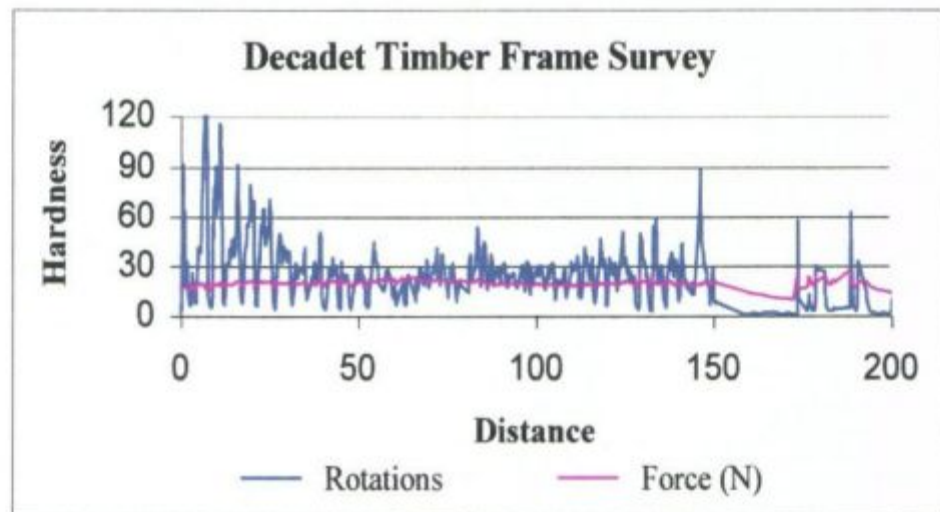
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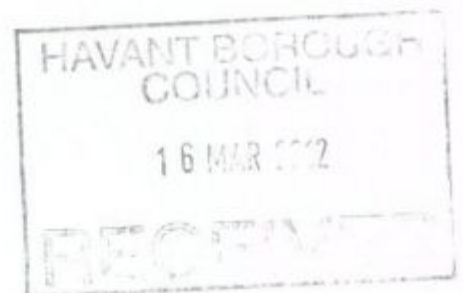
Survey Method

This survey investigation has been carried out with the use of a decay detection drill where at a light, constant drilling pressure a 200mm long narrow, flexible, telescopically supported probe, rotated at high speed, rapidly penetrates hard or soft wood. This simultaneously produces a digital record of the rate of penetration to a digital collection point.

This method of investigation is taken to scale with the digital measurement being assessed every 0.1mm (thirty readings per mm probe depth). Decay is detected by a sudden change in bandwidth or troughs on the graph, which indicates a breakdown of the growth rings of the sample.



Decay is evident between 150mm and 175mm and again around 185mm on the above sample probe result.



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General Notation

1. This survey has been carried out under the direction of Brian Eyley Partnership, Chartered Building Surveyors.
2. The survey has been concentrated on the condition and structural integrity of the principal frame members of the South-western corner of the property with visual inspection of the surrounding areas as noted within the report.
3. Original soleplates have been historically removed, whereby vertical support is gained by masonry infill panelling at ground floor level.
4. All infill panelling is of masonry where some areas of distress were noted.
5. Lateral movement is noticeable to the infill panelling of the gable wall being surveyed.
6. Lack of framing integrity was found during the survey to the gable wall framing.
7. Decay to the first-floor tie beam was evident during an initial visual inspection prior to the digital survey being carried out.
8. Two internal spine-beams were visually inspected where the gable wall framing would have originally supported them. One beam is apparently steel encased in concrete. Both beams are vertically supported at the gable wall by piers. The lower pier being masonry, the upper pier being panelled over.

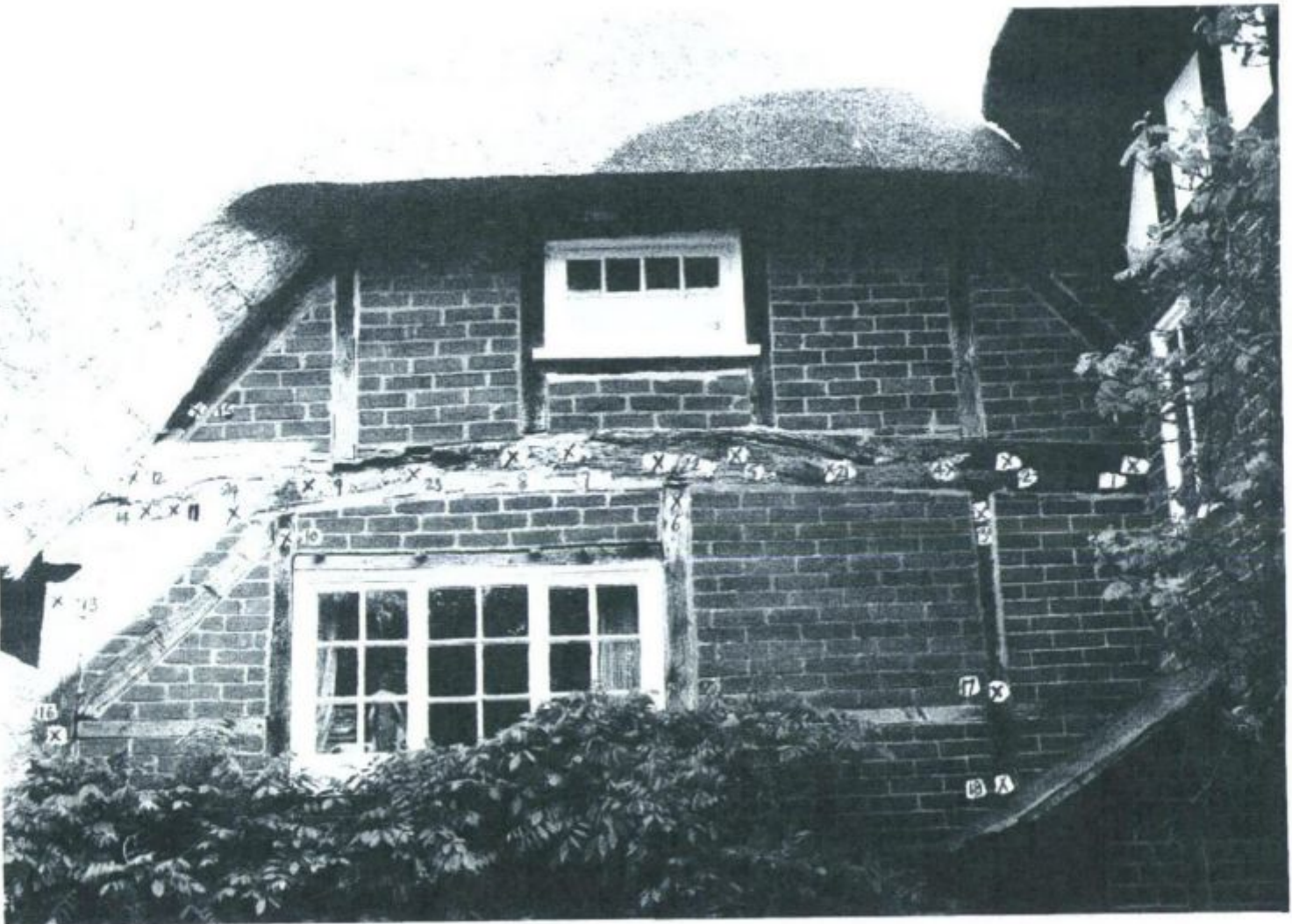
 conditions during the survey were good.

HAWAII BOARDS
COUNCIL

16 MAR 1992

Site Sketch Details

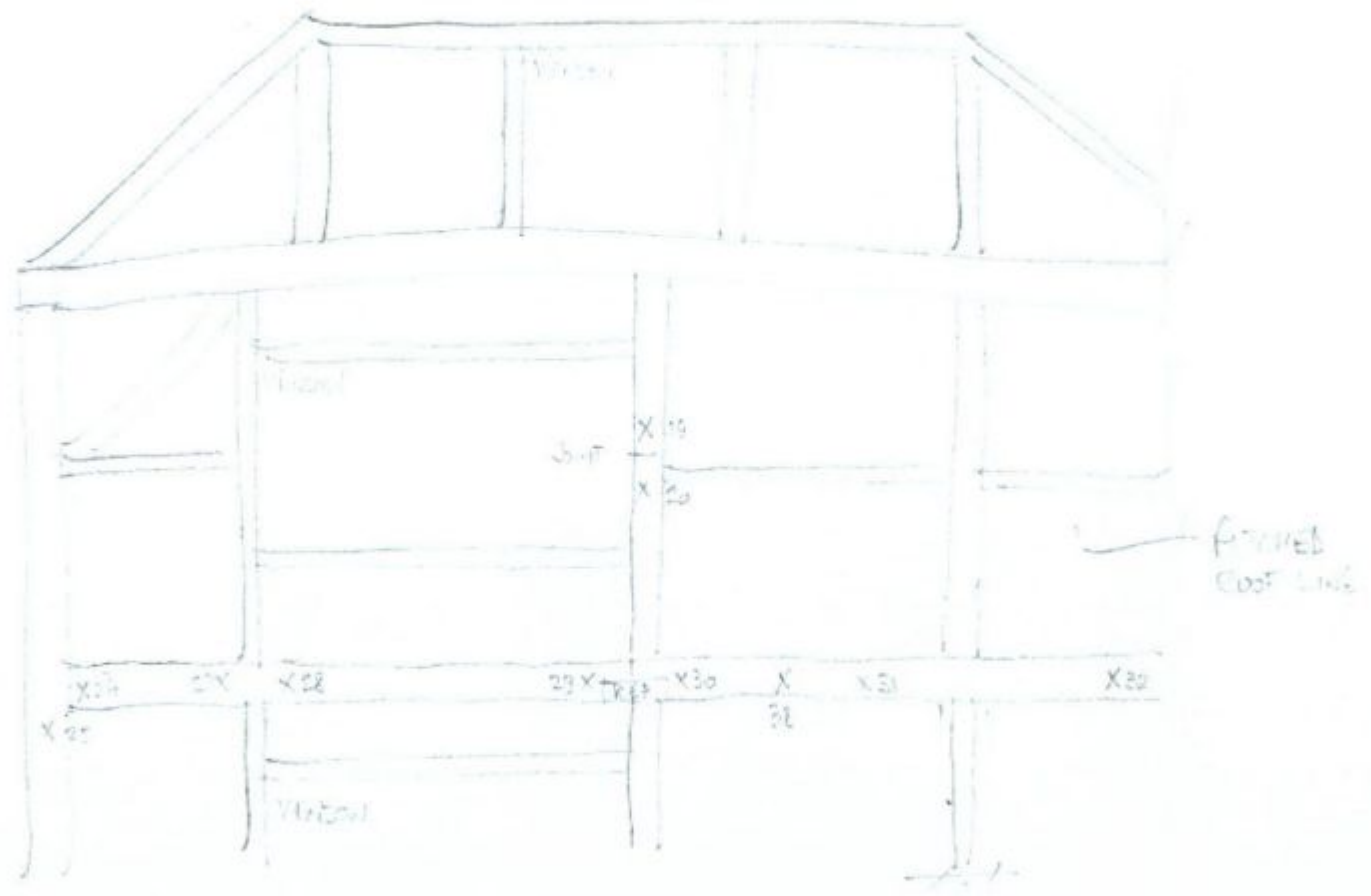
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South Elevation

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SOUTH ELEVATION JAPANESE



SOUTH VARIATION (LINE)

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General Repair Specification

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Cutting back	Ensure that all defective sections are cut back to a sound level face.
Treatment	Treatment should generally only be carried out 'as required' to prevent eradication of natural beetle predators.
Repair Timber	All replacement timbers should be 'like for like' to ensure balanced movement of the frame.
Repair Weathering	All repairs should ensure that water ingress is minimised and that the repair timbers are not liable to excessive movement.
Grain Direction	All repairs should be sympathetically carried out with timbers running in the same grain direction.
Face Repairs	Face repair timbers should be a minimum of 50mm in thickness to limit 'curling' of the section. Timbers should be resin bonded to the original timber, ensuring that all soft sections have been removed. No resin should at any time be applied anywhere near a joint of the frame. Alternatively the face repairs can be recess bolted with false peg plugs fitted on the tenon lines.
Joint Inspection	All tenons opened during repair works should be inspected for stability and repaired as necessary.
DPC	Any inserted damp-proof course should be carefully considered to prevent any moisture build-up beneath the soleplate. Not applicable in this instance as there is no soleplate.
Pegs	Any replacement jointing pegs should be split rather than sawn to prevent the possibility of cross-grain weakness.
Cavity Insulation	Any design of thermal requirements for the conversion of the building should consider dew points within a cavity construction and what effect it may have to the timber frame.
Heart Timber	Any repair timber should be converted so that the heartwood is not exposed, which would be liable to excessive movement.

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Photographs



Photograph 1



Photograph 2

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Photograph 3



Photograph 4

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Photograph 5



Photograph 6

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Photograph 7



Photograph 8



Photograph 9



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Defects Noted

Probe inspections have highlighted problems to the South elevation roof tie beam, general jointing and members as noted.

Probe	Location	Condition
Probe 01	Tie beam (RH side)	Decay 40-90mm
Probe 02	Ditto (Right of RH stud)	Decay 80-100mm
Probe 03	First Floor (FF) stud	Good
Probe 04	Tie beam (Left of RH studs)	Decay 40-95mm
Probe 05	Tie beam (central)	Good
Probe 06	Central stud (top)	50mm Good (see 19)
Probe 07	Tie beam (central)	Good
Probe 08	Ditto	Decay 15-100mm
Probe 09	Ditto (LH brace intersection)	Deterioration after 25mm
Probe 10	Top FF LH stud	Deteriorated
Probe 11	Tie beam (LH side)	Deterioration after 20mm
Probe 12	Principle Rafter (below repair)	Good
Probe 13	Corner post (top)	Good/deterioration
Probe 14	Tie beam (LH end)	Deterioration 10-90mm
Probe 15	Principle Rafter (above repair)	Good
Probe 16	Corner post/brace intersection	Good
Probe 17	RH FF intermediate post	Good
Probe 18	Ditto	Good
Probe 19	Centre post joint	Softening (80mm thick)
Probe 20	Ditto	Good (110mm)
Probe 21	Tie beam (Right of central)	Good
Probe 22	Tie beam (central)	Good

Probe	Location	Condition
Probe 23	Tie beam (left central)	Good
Probe 24	Tie beam (left of brace)	Deterioration 30-80mm
Probe 25	Corner post (FF level)	Good
Probe 26	FF beam (LH side)	Good
Probe 27	Ditto (left of window)	Good
Probe 28	Ditto	Deterioration 125-145mm
Probe 29	FF beam (central)	Good
Probe 30	Ditto	Good
Probe 31	Ditto (RH side)	Deterioration 15-80mm
Probe 32	Ditto	Good
Probe 33	Corner post (bottom)	Good
Probe 34	Post base	Degraded (45mm)
Probe 35	Ditto	Good (130mm)
Probe 36	Ditto	Good (95mm)
Probe 37	Ditto	Good (95mm)
Probe 38	FF beam	Good
Probe 39	Post base	Good (50mm)

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Repair Recommendations

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Defects Noted:

Framing integrity is broken down where joints are non-existent, of poor quality or nailed as shown on photographs 2, 3, 5, 6, 8 and 9.

Vertical support is inadequate as shown on photograph 4.

General deterioration, weathering problems and inappropriate mortar patch repairs are shown in photographs 1 to 7.

Brick infill panels lack lateral stability.

Recommendations:

General framing joints should be repaired, but intermediate studs are considered thin in cross section. Either the timbers will have to be temporarily removed for end splice repairs or brickwork opened up for side mechanical fixings. It is not recommended to install diagonal face fixings due to the possibility of water ingress.

Inappropriate face repairs in either timber or mortar should be removed and correct repairs carried out ensuring good weathering.

The principle rafter should have a bottom splice repair.

The upper tie beam is of major concern on this elevation. Serious deterioration is noted throughout the length of the section, where although small sections are found to be sound the overall strength of the beam must be questioned. Due to the shape of the existing beam it would be difficult to source a replacement without having it shape-cut resulting in possible cross grain which could lead to future deterioration and jointing to the right-hand end of the beam could be difficult due to the external obstruction. It is recommended that the upper brickwork be temporarily removed to allow access to the top face of the beam. The central deteriorated section of the beam should be carefully cut out to avoid damage to the internal and external faces. New sections of oak should be resin secured in maximum lengths possible. Stainless steel rods could be incorporated within the repair if possible. The face deterioration as shown in photograph 3 should be left without an external veneer repair which would possibly not be stable in the long term. It could be possible during these works to check the integrity of any jointing with the internal spine beam.

The brickwork in addition to the general framing problems could result in outward movement of the wall due to internal pressure or external negative forces. Once all framing is stabilised, mortar joints should be carefully cut back to allow stainless steel rods to be fixed to the return faces of sound studs or vertical framing. Rods should be resin fixed within the brick bed-joints and joints face repaired.

26th October 2011

Decadet
Unit 3, Roses Farm
Gallants Lane
East Farleigh
Kent ME15 0LG

Tel: 07836 746520

Dr WPA Ditmar



From: [REDACTED]
To: [REDACTED]
Sent: 03 November 2011 17:04
Attach: 928_1191.pdf
Subject: Re: Meadowsweet

Dear Walter

I am glad some things are moving forward but sorry to hear the news from the drilling, though not unexpected I'm afraid. Given the situation the wall will collapse at some time as any defects can only get worse.

Clearly next summer would be the best time to do the work and that gives us long enough to get all the permissions and materials etc. in place so once started we can progress it quickly.

As to costs I'm afraid that's the difficult question, but if you consider around £40,000 things should be possible. The frame, scaffolding, foundation, brick work and internals should be less than that but we don't know what we will find when trying to link to the remaining older structure.

My fees I would estimate around £1600 overall depending on how much time I would need to spend on site, I'm assuming I don't need to visit every week.

I hope the above is not too frightening and please feel free to phone me if you have any questions. I attach an invoice as requested.

Best Regards,
 Peter Shaw.

Sent: Wednesday, 2 November 2011, 12:47
Subject: Meadowsweet

Dear Peter,

Thank you for coming over to Hayling to look at our collapsing wall last Wednesday.

I have now received my copy of the micro drilling exercise, but it does not make happy reading. Many of the beams are in a poor state and the main tie beams have big cavities in them. I cannot yet let you have a copy of this report since I have not paid for it and therefore I don't yet own it! The upper and lower tie beams have ceased to 'tie' the cottage walls together since they are disconnected from the SW upright post and are just held in compression by the masonry above them. As a result the upright post is bulging out (it has a joint in the middle!) and the masonry panels near there are folding in or bulging out. At least that how it looks to me!

Since there are so many defects in this wall, I feel that your advice to rebuild is probably the only sensible way forward. It gives us the horrors to think how much all this is going to cost, but just doing a minimal repair is probably a poor investment.

Before we go further into deep water, can you give us some rough idea of what would be involved, how long such work might take and when it could be done (next summer?) and of course what sort of costs (including your professional charges) we might expect?

Of course you would need to do a detailed study to develop a more precise plan, but some initial idea of what we should expect will help us a lot. Also, can you bill us for your time so far?

Thanks for your help,

*• Conservation Carpenters •
• Timber Frame Designers & Fabricators •*

*The
Green
Oak*

• CARPENTRY • CO • LTD •

Dr W. Ditmar
Meadow Sweet
St Peters Road
Hayling Island
Hampshire
PO11 0RX



29th February 2012

Dear Walter and Sue

**Meadow Sweet, Hayling Island, PO11 0RX
Estimate for Structural Renovation to Gable End**

Further to my site visit I am pleased to enclose my estimate for your consideration. I hope I have understood all your requirements correctly and set out below my assumptions. I have sent 2 copies of my sketches etc so you can let the conservation officer have a copy. Please kindly set the wheels in motion to get listed building consent asap.

Estimate preamble.

1. The removal of the panels is to be by a local mason and suggest a meeting once your preferred contractor has been identified.
2. I will try to keep removal of the panels to a minimum but you should bear in mind that once a section of panel is removed the whole panel may be damaged and have to be removed also.
3. There is some risk of damage to internal finishes as the panels are removed and renovation carried out. Whilst we will take all due care we cannot avoid some risk.
4. I recommend the cutting back of the panel edges and re-pointing with traditional Lime mortar as this will provide a porous edge to the panels and Lime is a natural fungicide and insecticide.
5. Joinery items to be pre-ordered for delivery and installation shortly after completion of our works. Joinery by AO.
6. Entire replacements will be in Green Oak and will be subject to shrinkage until equilibrium MC has been achieved.
7. Facing work to the tie beam and mid-rail will be in well air dried oak section c.4" thick. We intend using epoxy resins and mechanical fixings in the form of stainless steel 8mm coach screws of appropriate length. Fixings will be plugged.
8. All joints well made and draw bored mortis and tenons except where precedent indicates otherwise, there are some joints that are butts which we will copy. The general rule in conservation is to let the building be the guide.
9. Tie straps in Blacksmith fabricated mild steel coated with black Smoothrite paint to protect from rust. You may choose to use stainless steel at a small extra cost. Strap work will be secured with coach screws.
10. Please note that once the work is underway it is possible that additional works may become apparent that cannot be anticipated at this stage. These we will need to agree and price as the works proceeds and advise setting aside a contingency to cover this.
11. GOCC will supply light weight access towers and ladders for the works.
12. NB. Attendance of the mason may be required during the works after the initial preparatory works to remove more panels etc.

E2076_WD_AHL_120229_Meadowsweet Estimate 2

Langley Farm, Rake, Liss, Hants, GU33 7JW • Tel: 01730 892049 • Fax: 895225 •
www.greenoakcarpentry.co.uk enquiries @ greenoakcarpentry.co.uk

VAT No. 750559913

Company No. 3263693

Meadowsweet
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13. You will need to source a suitable stock brick to replace those damaged in removal and recommend you discuss with the Conservation Officer who should be able to advise. Traditional Lime mortars may be obtained from the Lime Centre, Morestead, Nr Winchester.

Estimate.

- See sketch. Cut away face of tie beam and bond and screw onto face 4" dry oak facing. This will have to be in two lengths to allow the sections to follow the curvature of the beam.
- Fit new corner post reforming joints with slip tenons as required and reform joints. Set post on masonry plinth c. 8" off the ground to keep out of splash zone. Insert corner strap 50 x 10 x with 750mm legs and fix each leg with 5no. M12 x 125 coach screws.
- Fix 50 x 650 tie strap with 100mm down stand to top plate in mild steel and fix with 4no. m12 X 125 coach screws.
- Insert new top rail to first floor window in green oak and reform joints.
- Insert 2no. new first floor window studs in green oak to either side of window and reform joints.
- Carry out face patch to mid-rail in similar fashion to the tie beam.
- Insert 2no. ground floor studs in green oak to either side of window and reform joints.
- Insert 2no. new window rails in green oak and reform joints.
- This estimate does not include any masonry works.

Carpentry works for the sum of £12,935 ex VAT

May I suggest that should you wish to receive an engineers letter of adequacy for the works you contact Nigel Challis from Andrew Waring Associates and send him a copy my documentation. He will most likely want to make a visit during the works to check and possibly again on completion. Your appointment should be with him directly.

As discussed I suggest an April/May start so as not to cause too much discomfort during the works.

I trust the foregoing meets with your approval and if you have any queries don't hesitate to get in touch.

With best regards



CC Nigel Challis. AWA.